



A Guide to Residential Building Permit Applications

Single-Family & Duplex

Bulletin 21

Division of Building, Safety, and Inspection for 2015 International Codes

To accept an application for a permit, documents and information submitted must be complete and all applicable fees must be paid. A complete application includes all of the applicable information for the project as noted on the [Application Checklist](#). For your convenience, you may submit your documents Online at <https://piercecountywa.org/pals>.

PARCEL NUMBER - The permit process is started with land information found using the parcel number. The tax parcel number is noted on the property tax statement. You may also obtain a tax parcel number from the [Pierce County Assessor/Treasurer's office](#).

Step One: Gathering Information

Use your parcel (tax) number to research information on our [About My Property](#) web page. Some of the items that you need to find out about include: wetlands; flood zones; steep slopes; setbacks; allowed uses; and erosion control requirements for your specific project.

Step Two: Making an Application

Using the [Application Checklist](#) collect all the required plans, reports and other documentation noted. It is important to get all the information that was noted on the Application Checklist. Refer to the [Site Plan Guide](#) on how to prepare a site plan.

Step Three: Inspections

Once the permit has been issued, site inspections will be made. Some projects may require permits from more than one agency. Each agency may have inspection requirements that you will need to coordinate.

Items to Include with Your Construction Drawings

Foundation Plans

1. **Plan view of foundation.** Show the size and shape with a dashed line for the footing. Include all dimensions.
2. **Cross sections.** Call out sizes of footings, required steel and anchor bolts. Show all interior support beams, posts and footings.
3. **Slab on grade.** If applicable, indicate which areas are slab on grade and method of insulation.
4. **Crawl space vents.** Call out location, typical sizes, and ventilation area per IRC Section R408.1
5. **Ground cover.** Describe type proposed, i.e. 6-mil. black polyethylene or equivalent.
6. **Carpports, patios, breezeways, decks, etc.** Show extent and location of all slabs, foundations, and footings.
7. **Damp-Proofing / Water-Proofing of foundation walls.** Enclosing a basement below grade (refer to IRC Section R406.1 and R406.2).

Framing Plans – Floor & Roof

1. **Engineering.** When provided, shall be prepared and stamped by an Architect or Engineer licensed in the State of Washington. Structural calculations must be wet stamped and separated from the structural drawings. Structural drawings must be submitted electronically (PDF format).
2. **Layout.** Show direction of layout for the floor joists, ceiling joists, rafters and trusses.

3. **Roof framing/trusses.** Call out spacing. Show and label hip masters, hip jacks, end jacks, girder trusses, hangers, bearing areas, etc.
4. **Roof members.** Call out size, spacing and all headers.
5. **Show line of structure** above where applicable. Particularly overhangs, cantilevers, roofs, etc.
6. **Materials and species.** Show floor, roof, and deck framing including size, species, grade, and spacing, i.e., 2" x 10" HEM-FIR #2 @ 16" O.C.
7. **Connectors.** Beam to beam, post to beam, truss joist and beam hanger, call out size and location. Provide detailed drawings and calculations for custom fabricated connectors.
8. **Miscellaneous structural components.** Show doubled joist, blocking, headers, bearing points, etc.
9. **Bearing walls.** Label and distinguish bearing walls.
10. **Ridges, hips and valleys.** Call out size and species of ridge board, hip rafter, valley rafter and purlins.
11. **Skylights.** Call out sizes and location.
12. **Fireplace.** Show framing and structural support for wood chase.
13. **Stairs.** Show locations of rough opening, headers, double joist, etc.

Conventional Construction and Lateral Bracing Provisions

1. **Buildings that are not "Irregular"**, may have wall bracing designed to the conventional construction provisions of IRC Section R602.10. Portions of a building not meeting the conventional construction provisions may be designed by a licensed Architect or Engineer. IRC Section R301.1.3.
2. **Irregular Buildings**, are required to be designed by an Architect or Engineer licensed in the State of Washington. IRC Section 301.2.2.2.5 defines buildings that are irregular.
3. **All braced wall lines** and braced wall panels, shall be clearly identified on the plans.

Floor Plans

1. **Label the use of each room.** Example: Bedroom, bathroom, kitchen, closet, etc.
2. **Walls.** Show all walls, exterior, interior, bearing, half wall and knee walls (indicate if new or existing for additions and remodels). Show height (walls over 10' in stud height require engineering). Show all header sizes.
3. **Openings.** Show and size all openings (door and window). Indicate if fixed or operable. Window sizes must meet minimum requirements for light and ventilation or provide artificial light and mechanical ventilation. IRC Section R303.
4. **Emergency escape openings.** Provide at least one window or exterior door approved for emergency escape or rescue from a basement and every room used for sleeping purposes. Windows shall have a 20" minimum width, 24" minimum height, 5.7 square foot minimum net clear opening. Windows at grade shall have a net clear opening of 5 square feet, and a 44" maximum sill height above the finished floor. IRC Section R310.
5. **Window wells.** Emergency escape and rescue windows with a finished sill height below the adjacent ground elevation shall have a window well. The minimum horizontal area of the window well shall be 9 square feet with a minimum horizontal projection and width of 36 inches. The area of the window well shall allow the emergency escape and rescue opening to be fully opened. Window wells with a vertical depth more than 44" shall be equipped with an approved permanently affixed ladder or stairs that are accessible with the window in the fully open position. The ladder or stairs shall not encroach into the required dimensions of the window well by more than 6". IRC Section R310
6. **Doors.** Call out sizes and show swing. Show sliding door locations. If a pocket door is proposed, show the entire pocket area.

7. **Stairs.** Show direction of travel (up/down).
8. **Fireplace.** Install per manufacturer's specifications.
9. **Attic Access.** Attic access and other openings in the floor or ceiling such as laundry chutes, dumb waiters, etc.
10. **Smoke Detectors.** Show location, minimum one for each bedroom and one in the immediate vicinity outside of bedroom area and on each floor level. Additional detectors may be required depending on ceiling height and have placement restrictions with regards to proximity to bathrooms and kitchen stoves. IRC Section R314.
11. **Carbon Monoxide Alarms.** Show location outside each sleeping area in the immediate vicinity of the bedrooms and on each level. State Amendment to IRC R315.2.1
12. **Plumbing fixtures.** Show the location of all fixtures, including bath and kitchen fixtures, water heater, pressure tanks and sump pumps.
13. **Furnace.** Show location of heating appliance and source of combustion air where applicable.
14. **Mechanical ventilation.** Show all fan locations including whole house exhaust fans, outdoor air inlets, etc., in accordance with [Chapter 15 of the IRC](#).
15. **Occupancy separation.** Door openings between the garage and the residence shall be equipped with a solid wood door not less than 1-3/8" inches in thickness, solid or honeycomb core steel doors not less than 1-3/8" inches in thickness or labeled as 20-minute fire rated and shall be equipped with a self-closing device. IRC Section R302.5.1. The garage shall be separated from the residence and its attic area by not less than ½-inch gypsum board applied to the garage side. IRC Table 302.6
16. **Garages beneath habitable rooms** shall be separated by 5/8" Type X drywall. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½ -inch gypsum board or equivalent. IRC Table R302.6.

Note: When using the modified one-hour construction option for fire flow purposes, all interior wood frame surfaces must be covered with fire rated Type X gypsum wallboard.

Cross Sections

1. **Foundation footings and walls.** Show footing and wall sizes, structural steel, concrete slab as required, and perimeter insulation.
2. **Extend concrete** 6" above grade for foundations supporting untreated wood.
3. **Floor.** Call out system, i.e. ¾" T & G plywood decking over 2 x 10 floor joist @ 16" O.C.
4. **Wall.** Call out system, i.e. Exterior: 1 x 8 bevel cedar siding over ½" plywood sheathing over 2 x 6 studs @ 16" O.C. with R-21 insulation on ½" gypsum wallboard. Interior: 2 x 4 studs @ 16" O.C. with ½" gypsum wall board each side.
5. **Wall height.** Dimension height from floor to ceiling. The minimum ceiling height for living areas is 7'. Refer to IRC section R305 for ceiling heights in other areas.
6. **Header Height.** This helps in determining egress requirements.
7. **Sloped Ceilings.** Headroom height above bathroom fixtures located under stairs or sloped ceilings. IRC Section R305
8. **Connectors.** Beam to beam, post to beam, truss beam hangers; call out sizes. Provide details and engineering for custom fabricated connectors.
9. **Insulation.** Show R-Value of insulation to be used for ceilings, walls and floors.
10. **Stairs.** Show stair rise & run, handrails, landing and headroom dimensions. If no cross section is provided, call out the maximum riser and minimum run requirements.
11. **Chimneys.** Must extend 2' vertically above any structure within 10' measured horizontally and not less than 3' above the highest point where the chimney passes through the roof. IRC Section R1003.9. Call out wood chase, metal cap and show how supported.
12. **Roof slope.** Show rise and run.

13. **Roof sheathing.** Call out material type, thickness and spacing.
14. **Roof covering material.** Indicate type of roofing material to be used.
15. **Eave blocking.** Indicate if blocking is used for attic ventilation.
16. **Overhang.** Provide dimensions on roof framing plan and elevation drawings.
17. **Patios, decks.** Specify type of materials used and dimension the height of walking surfaces to grade.
18. **Guards.** Show height, spacing of pickets etc. IRC Section R312.
19. **Handrails.** Show dimensions of hand grip portion, continuity, etc. IRC Section 311.7.8

Elevations

1. **Exterior elevations.** Provide elevation views of each exterior side of the building.
2. **Exterior wall finishes.** Specify type of siding and trim materials proposed.
3. **Vertical dimensions.** Provide the height of each story including header heights.
4. **Location of all openings.** Windows, doors, gable vents, etc.
5. **Proposed finished grade.** Please refer to the definitions in IRC Section 202 for basements stories above grade. What you may consider a basement could be defined as a story.

General Contractor

Your general contractor must be designated at the time an application is processed and shall be registered by the State of Washington. An application will be accepted upon confirmation the contractor's registration is valid. The property owner may be designated as the general contractor if he/she plans to retain ownership of the house for at least two years. Homeowners who act as the general contractor must hire registered subcontractors for any work they do not do themselves.

Additional Permits may be required for the following:

Mechanical Equipment

Furnace
Heat Pumps
Fireplace Inserts/Wood Stoves
Gas Piping
Exhaust Fans
Dryer Vents

Plumbing Fixtures

Sinks, Toilets, Showers, Bathtubs, etc.
Water Heater
Hose Bib
Automatic Lawn Sprinkler System

Electrical Wiring

Electrical wiring permits are issued by either the Washington State Department of Labor and Industries (253-596-3800) or Tacoma Power (253-502-8277). Please contact the appropriate agency for their specific requirements.

Monitored Alarm and Fire Sprinkler Systems

Fire Prevention Bureau call 253-798-7179

Helpful Links

- Pierce County Planning and Public Works:
<http://www.piercecountywa.org/index.aspx?NID=117>
- International Residential Code (IRC): <http://codes.iccsafe.org/app/book/toc/2015/I-Codes/2015%20IRC%20HTML/index.html>
- International Building Code (IBC): <http://codes.iccsafe.org/app/book/toc/2015/I-Codes/2015%20IBC%20HTML/index.html>
- Labor & Industries – Electrical Permitting:
<http://www.lni.wa.gov/TradesLicensing/Electrical/FeePermInsp/>
- City of Tacoma – Electrical Permitting: <https://www.mytpu.org/tacomapower/electrical-permitting/electrical-inspection-permits/>